



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 8/18/2015
Invoice #: 80433
API#: 05-123-41906
Foreman: Calvin Reimers

Customer: Anadarko Petroleum Corporation
Well Name: Powers 35N-22HZ

County: Weld
State: Colorado
Sec: 22
Twp: 2N
Range: 65W

Consultant: Bryan / Hayden
Rig Name & Number: Noble 2
Distance To Location: 40 Miles
Units On Location: 4023-3104/4033-3203
Time Requested: 800am
Time Arrived On Location: 710am
Time Left Location: 10:45 am

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 1,854
Total Depth (ft) : 1870.96
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 60
Conductor ID : 15.5
Shoe Joint Length (ft) : 42
Landing Joint (ft) : 10

Max Rate: 6
Max Pressure: 1750

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 14.2
Cement Yield (cuft) : 1.49
Gallons Per Sack: 7.48
% Excess: 15%
Displacement Fluid lb/gal: 8.3
BBL to Pit: 30
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 15.0

Spacer Ahead Makeup
30 bbls With Dye in 2nd 10 bbls

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 18.43 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 48.30 cuft
(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 1008.28 cuft
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 1075.01 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 191.46 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 721 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 128.49 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 140.82 bbls

(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 1367.67 PSI

Pressure of the fluids inside casing

Displacement: 781.08 psi

Shoe Joint: 31.32 psi

Total 812.41 psi

Differential Pressure: 555.26 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 314.31 bbls

X Bryan Brown
Authorization To Proceed



Bison Oil Well Cementing Single Cement Surface Pipe

Customer
Well Name

Anadarko Petroleum Corporation
Powers 35N-22HZ

INVOICE #

80433

LOCATION

Weld

FOREMAN

Calvin Reimers

Date _____

8/18/2015

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DESCRIPTION OF JOB EVENTS

[illegible]

X

Work Performed	
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X

Title

3

Date _____

SERIES 2000

